

ABSTRACT OF THE DISCLOSURE

An apparatus and a method for controlling operation of a reciprocating compressor is capable of reducing a stroke estimation error by eliminating an error that occurs due to resistance and inductance of a compressor motor by estimating a stroke with a counter electromotive force induced by a searching coil. Furthermore, by leaving errors of inductance and resistance, among all motor parameters, out of consideration in stroke estimation, a stroke estimation error can be reduced.